Computer Based Examination System

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Title *	Question Paper Answer Key
OES Exam *	GPSC10202411 / Assistant Professors in Government College in Physics/ Completed / 2025-03-02

1

Question Description	An impermeable yet movable barrier isolates two gases allowing them to easily exchange energy. When both sides are in balance, they will have the same
A	pressure and temperature
B	temperature and energy
C	energy and volume
D	pressure and volume
E	None of the above
Correct Answer	A
Marks	1

2

Question Description	According to Kirchoff's laws for circuits, the sum of the currents at any junction is equal to zero. Which of the following equations for the current density $\vec{j}$ describe this situation? (A) $\vec{\nabla} \times \vec{j} = 0$ (B) $\vec{\nabla} . \vec{j} = 0$ (C) $\nabla^2 \vec{j} = 0$ (D) $\frac{\partial \vec{j}}{\partial t} = 0$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	B
Marks	1

3	**Question Description**	Consider the following Boolean expression $(\overline{A} + \overline{B})\,[\overline{A(B + C)}] + A\,(\overline{B} + \overline{C})$. It can be represented by a single three-input logic gate. Identify the gate a. NAND b. AND c. OR d. XOR
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	A
	Marks	1

4

Question Description	An inductor L, a capacitor C and a resistor R are connected in series to an AC source, $V = V_0 \sin \omega t$. If the net current is found to depend only on R, then (A) $C = 0$ (B) $L = 0$ (C) $\omega = \frac{1}{\sqrt{LC}}$ (D) $\omega = \sqrt{\frac{1}{LC} - \frac{R^2}{4L^2}}$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

5		
	Question Description	The dependence of current I on the voltage V of a certain device is given by $I = I_0\left(1 - \frac{V}{V_0}\right)^2$, where I_0 and V_0 are constants. In an experiment, the current I is measured as the voltage V applied across the device increases. The parameters V_0 and $\sqrt{I_0}$ can be graphically determined as a. the slope and the y -intercept of the $I - V^2$ graph. b. the negative of the ratio of the y-intercept and the slope, and the y-intercept of the $I - V^2$ graph. c. the slope and the y-intercept of the $\sqrt{I_0} - V$ graph. d. the negative of the ratio of the y-intercept and the slope, and the y-intercept of the $\sqrt{I_0} - V$ graph.
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	D
	Marks	1

6

Question Description	To measure the voltage in the range 0 to 5 V with a precision of 5 mV, the minimum number of bits required in a digital voltmeter is a. 10 b. 11 c. 12 d. 13
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	A
Marks	1

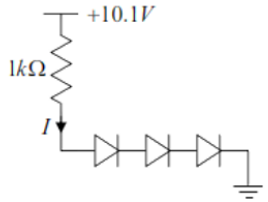
7

Question Description	A charged particle moves in a uniform magnetic field B in a circular path of radius R. If the strength of the magnetic field is doubled without changing the speed of the particle, the new path will have a radius?
A	4R
B	2R
C	R/4
D	R/2
E	None of the above
Correct Answer	D
Marks	1

8

Question Description	A pure Si crystal can be converted to an p-type crystal by doping with a. P b. As c. Sb d. In
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	D
Marks	1

9

Question Description	Consider the circuit given in the figure. Let the forward voltage drop across each diode be 0.8V . The current I (in mA) through the resistor is _____ A) 4.6 mA B) 5.8 mA C) 7.7 mA D) 2.0 mA 
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

10

Question Description	An ideal Carnot engine extracts 100J from a heat source and dumps 50J to a heat sink at 300J. The temperature of the heat source is
A	750J
B	900J
C	800J
D	600J
E	None of the above
Correct Answer	D
Marks	1

11		
	Question Description	The Fourier series of a periodic function (with period 2π) is given by $$f(x) = \frac{a_0}{2} + \sum_{n=1}^{\infty} \left(a_n cos(nx) + b_n sin(nx)\right)$$ If $f(x)$ is defined as $$f(x) = x, \; if \; -\frac{\pi}{2} < x < \frac{\pi}{2} \quad and, \; \pi - x, \; if \; \frac{\pi}{2} < x < \frac{3\pi}{2},$$ then, a_0 is a. 2π b. − 2π c. 0 d. 1
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	C
	Marks	1

12

Question Description	The Hamiltonian for a particle of mass m is $$H = \frac{p^2}{2m} + kqt\,,$$ where q, p, t and k are the generalized coordinate, generalized momentum, time and constant respectively. For the initial condition, $q = 0$ and $p = 0$ at $t = 0$, $q(t) \propto t^{\beta}$. The value of β is a. 1 b. 3 c. $\frac{1}{2}$ d. $\frac{2}{3}$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	B
Marks	1

13

Question Description	For an ideal gas in three dimension, the fermi energy Ef at the surface is related to n as A)Ef≈ $n^{1/3}$ B)Ef≈ $n^{\frac{4}{3}}$ C)Ef≈ $n^{\frac{2}{3}}$ D)Ef≈ $n^{\frac{1}{2}}$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

14	**Question Description**	In a certain inertial frame two light pulses are emitted at point 5km apart and separated in time by 5□s. An observer moving at a speed V along the line joining these points notes that the pulses are simultaneous. Therefore, V is
	A	0.7c
	B	0.8c
	C	0.3c
	D	0.9c
	E	None of the above
	Correct Answer	C
	Marks	1
15	**Question Description**	In a series of five Cricket matches, one of the captain calls “Heads” every time when the toss is taken. The probability that he will win 3 times and lose 2 times is
	A	1/8
	B	5/16
	C	3/17
	D	6/16
	E	None of the above
	Correct Answer	B
	Marks	1

16

Question Description	The ground state energy of an anisotropic harmonic oscillator, described by the potential $V(x,y,z) = \frac{1}{2}m\omega^2x^2 + 8m\omega^2y^2 + 2m\omega^2z^2,$ is a. $\frac{1}{2}\hbar\omega$ b. $\frac{3}{2}\hbar\omega$ c. $\frac{5}{2}\hbar\omega$ d. $\frac{7}{2}\hbar\omega$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	D
Marks	1

17

Question Description	Consider a square well of depth $-V_0$ and width 'a' with V_0 as fixed. Let $V_0 \to \infty$ and $a \to 0$. This potential well has (A) No bound states (B) 1 bound state (C) 2 bound states (D) Infinitely many bound states
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	B
Marks	1

18		
	Question Description	For the function $f(z) = \frac{z - sinz}{z^3}$, the point $z = 0$ is a. a pole of order 2 b. a pole of order 3 c. a removable singularity d. an essential singularity
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	C
	Marks	1

19

Question Description	Given the scalar and vector potentials in free space $\phi(r,t) = 0$ and $\vec{A}(r,t) = \hat{j}A_0 Sin(kx - \omega t)$, where A_0, k and ω are constants. The time average Poynting vector corresponding to the above potentials is given by? (A) $\frac{\omega k {A_0}^2}{\mu_0}\hat{k}$ (B) $-\frac{\omega k {A_0}^2}{4\mu_0}\hat{j}$ (C) $\frac{\omega k {A_0}^2}{2\mu_0}\hat{\imath}$ (D) $\omega k {A_0}^2 \hat{\imath}$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

20

Question Description	If the partition function of a harmonic oscillator with frequency ω at a temperature T is $\frac{k_B T}{\hbar\omega}$, then the free energy of N such independent oscillator is a. $\frac{3}{2}Nk_BT$ b. $k_BT\ ln\left(\frac{\hbar\omega}{k_BT}\right)$ c. $Nk_BT\ ln\left(\frac{\hbar\omega}{k_BT}\right)$ d. $Nk_BT\ ln\left(\frac{\hbar\omega}{2k_BT}\right)$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	C
Marks	1

21

Question Description	If $y(x)$ satisfies the differential equation $y'' - 4y' + 4y = 0$ with boundary condition $y(0) = 1 \; and \; y'(0) = 0, then \; y\left(-\frac{1}{2}\right) =$ a) $\frac{2}{e}$ b) $\left(\frac{2}{e} + e\right)$ c) $\frac{1}{e}$ d) $\frac{e}{2}$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	A
Marks	1

22

Question Description	A classical particle with total energy E moves under the influence of a potential $V(x, y) = 3x^3 + 2x^2y + 2y^2x + y^3$. The average potential energy, calculated over a long time is equal to, (A) 2E/3 (B) E/3 (C) E/5 (D) 2E/5
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	D
Marks	1

23		
	Question Description	What is the value of the following series? $\left(1+\frac{1}{2!}+\frac{1}{4!}+\cdots\cdots\right)^2-\left(1+\frac{1}{3!}+\frac{1}{5!}+\cdots\cdots\right)^2$ a) 0 b) e c) e^2 d) 1
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	D
	Marks	1

24		
	Question Description	What is the physical dimension of the wave function $\psi(x, y, z)$ of an electron in the 3-dimensional position space? a. $[L^{-3/2}]$ b. $[L^{3/2}]$ c. $[L^{-1}]$ d. $[L^{0}]$
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	A
	Marks	1

25

Question Description	If the Poisson bracket $\{x, p\} = -1$, then the Poisson bracket $\{x^2 + p, p\}$is? (A) −2x (B) 2x (C) 1 (D) −1
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	A
Marks	1

26

Question Description	The refractive index, n of the entire environment around a double slit interference setup is changed from $n = 1$ to $n = 2$. Which one of the following statements about the change in the interference pattern is correct? a. The fringe pattern disappears b. The central bright maximum turns dark, i.e. becomes a minimum c. Fringe width of the pattern decreases by a factor 2 d. Fringe width of the pattern increases by a factor 2
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	C
Marks	1

27

Question Description	The inverse Laplace transforms of $log\left(1+\frac{1}{s}\right)$ is. a) $\frac{1}{t}[1-e^{-t}]$ b) $\frac{1}{t^2}[1-e^{-2t}]$ c) $\frac{1}{t}[1+e^{-t}]$ d) $\frac{1}{t^2}[1+e^{-2t}]$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	A
Marks	1

28

Question Description	The rms speed of hydrogen atom at room temperature (300k) is 2000m/s calculate the rms speed of hydrogen atom on the surface of sun where temperature is T=2*10^6K
A	164m/s
B	1640m/s
C	164000m/s
D	16400m/s
E	None of the above
Correct Answer	C
Marks	1

29

Question Description	Consider the Bohr model of the hydrogen atom. If α is the fine-structure constant, the velocity of the electron in its lowest orbit is (A) $\frac{c}{1+\alpha}$ (B) $\frac{c}{1+\alpha^2}$or (1-αc) (C) $\alpha^2 c$ (D) αc
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	D
Marks	1

30

Question Description	The dispersion relation for EM wave in a certain medium is given by $\omega^2 = ak^2$ where ω is angular frequency, a is a constant and k is magnitude of wave vector. The velocity of energy propagation in this medium is? (A) proportional to ω (B) inversely proportional to ω (C) independent of ω (D) proportional to $\sqrt{\omega}$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

31

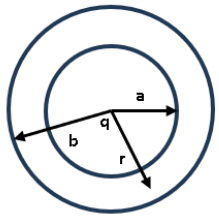
Question Description	If (q, p) is a canonically conjugate pair, which of the following is not a canonically conjugate pair? (A) $\left(q^2, \frac{pq^{-1}}{2}\right)$ (B) $\left(q^2, -\frac{pq}{2}\right)$ (C) $(pq^{-1}, -q^2)$ (D) $(f(p), -q/(f\text{^}'(p))$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

32

Question Description	The best resolution that a 7 bit A/D convertor with 6V full scale can achieve is_____ mV .
A	45.67
B	38.54
C	39.37
D	47.24
E	None of the above
Correct Answer	D
Marks	1

33		
	Question Description	Let, $\rho(p, q, t)$ be the phase space density of an ensemble of a system. The Hamiltonian of the system is $H(p, q)$. If $\{X, Y\}$ denotes the Poisson bracket of X and Y, then $\frac{d\rho}{dt} = 0$ implies a. $\frac{\partial \rho}{\partial t} \propto 0$ b. $\frac{\partial \rho}{\partial t} \propto \{H, \rho\}$ c. $\frac{\partial \rho}{\partial t} \propto \left\{\rho, \frac{p.q}{2}\right\}$ d. $\frac{\partial \rho}{\partial t} \propto \left\{\rho, \frac{q.q}{2}\right\}$
	A	a
	B	b
	C	c
	D	d
	E	None of the above
	Correct Answer	B
	Marks	1

34

Question Description	A conducting spherical shell of inner radius a and outer radius b has a point charge located at the center of the shell. The potential at a distance r from the center (a<r<b) is? (A) 0 (B) $\frac{1}{4\pi\epsilon_0}\frac{q}{a}$ (C) $\frac{1}{4\pi\epsilon_0}\frac{q}{r}$ (D) $\frac{1}{4\pi\epsilon_0}\frac{q}{b}$ 
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	D
Marks	1

35

Question Description	Suppose the spin degree of freedom of two particles (nonzero rest mass and nonzero spin) is described completely by a Hilbert space of dimension twenty-one. Which of the following could be the spin of one of the particles?
A	2
B	3/2
C	1
D	½
E	None of the above
Correct Answer	C
Marks	1

36

Question Description	What is the angle (in degrees) between the surface $y^2 + z^2 = 2$ and $y^2 - x^2 = 2$ at the point $(1, -1, 1)$ a) 30 b) 45 c) 60 d) 120
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

37

Question Description	In a certain inertial frame two light pulses are emitted at point 5km apart and separated in time by 5□s. An observer moving at a speed V along the line joining these points notes that the pulses are simultaneous. Therefore, V is
A	0.7c
B	0.8c
C	0.3c
D	0.9c
E	None of the above
Correct Answer	C
Marks	1

38

Question Description	What is maximum number of extrema of the function $f(x) = P_k(x)e^{-\left(\frac{x^4}{4}+\frac{x^2}{2}\right)}$ where $x \in (-\infty, \infty)$ and $P_k(x)$ is an arbitrary polynomial of degree k? a) $k+2$ b) $k+3$ c) $k+6$ d) k
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	B
Marks	1

39

Question Description	A spin-$\frac{1}{2}$ particle in a uniform external magnetic field has energy eigenstates $\|1\rangle$ and $\|2\rangle$. The system is prepared in ket-state $\frac{\|1\rangle+\|2\rangle}{\sqrt{2}}$ at time t = 0. It evolves to the state described by the ket $\frac{\|1\rangle-\|2\rangle}{\sqrt{2}}$ in time T. The minimum energy difference between two levels is: (A) $\frac{h}{6T}$ (B) $\frac{h}{4T}$ (C) $\frac{h}{2T}$ (D) $\frac{h}{T}$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

40

Question Description	Consider a system consisting of three non-degenerate energy levels, with energies 0, ε, and 2ε. In the limit of infinite temperature, the probability of finding a particle in the ground state is a. 1 b. $\frac{1}{3}$ c. $\frac{1}{2}$ d. 0
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	B
Marks	1

41

Question Description	The reversible and irreversible engine are working between the same temperatures. The efficiency of
A	Irreversible is twice to the reversible
B	Irreversible is smaller
C	Reversible is greater ‘
D	Both are same
E	None of the above
Correct Answer	A
Marks	1

42

Question Description	Consider the electric and magnetic fields of an accelerating charge. How should the fields vary with r (the retarded distance) for the Poynting vector to remain finite at arbitrarily large distances? (A) $\frac{1}{r}$ (B) $\frac{1}{r^2}$ (C) r^2 (D) r
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	A
Marks	1

43

Question Description	Which of the following statements is CORRECT for a common emitter amplifier circuit?
A	The output is taken from the emitter
B	There is 180^{o} phase shift between input and output voltages
C	There is no phase shift between input and output voltages
D	Both p-n junctions are forward biased
E	None of the above
Correct Answer	B
Marks	1

44

Question Description	Consider a quantum particle in a one-dimensional box of length L . The coordinates of the leftmost wall of the box is at x = 0 and that of the rightmost wall is at x = L . The particle is in the ground state at t = 0 . At t = 0 , we suddenly change the length of the box to 3L by moving the right wall. What is the probability that the particle is in the ground state of the new system immediately after the change? (A) 0.36 (B) $\frac{9}{8\pi}$ (C) $\frac{81}{64\pi^2}$ (D) $\frac{0.5}{\pi}L$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	C
Marks	1

45

Question Description	The Schrodinger wave function for a stationary state of an atom in spherical polar coordinates (r, θ, ϕ) is $$\psi(r, \theta, \phi) = A\, f(r)\, sin\theta\, cos\theta\, e^{i\phi}$$ where A is the normalization constant. The eigenvalue of $\widehat{L_z}$ for this state is a. $2\hbar$ b. $\hbar$ c. $-\hbar$ d. $-2\hbar$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	B
Marks	1

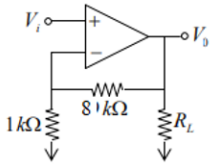
46

Question Description	A power supply has internal resistance R_S and open load voltage V_S □7 V. When a load resistance R_L is connected to the power supply, a voltage drop of V_L □6 V is measured across the load. The value of R_L/R_S is _____
A	1
B	3
C	4
D	6
E	None of the above
Correct Answer	D
Marks	1

47

Question Description	A cylindrical shell of mass m has an outer radius b and an inner radius a. The moment of inertia of the shell about the axis of the cylinder is: (A) $\frac{1}{2}m(b^2 - a^2)$ (B) $\frac{1}{2}m(b^2 + a^2)$ (C) $m(b^2 - a^2)$ (D) $m(b^2 + a^2)$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	B
Marks	1

48

Question Description	In the given circuit, if the open loop gain A = 10^5 the feedback configurations and the closed loop gain A_f are A) series-shunt, $A_f = 9$ B) series-series, $A_f = 8$ C) series-shunt, $A_f = 11$ D) shunt-shunt, $A_f = 10$ 
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	A
Marks	1

49

Question Description	The ground state energy of 5 identical spin-$\frac{1}{2}$ particles which are subject to a one dimensional simple harmonic oscillator potential of frequency ω is (A) $\frac{15}{2}\hbar\omega$ (B) $\frac{13}{2}\hbar\omega$ (C) $\frac{1}{2}\hbar\omega$ (D) $5\hbar\omega$
A	A
B	B
C	C
D	D
E	None of the above
Correct Answer	B
Marks	1

50

Question Description	Let, $\mathbf{E}(x, y, z, t) = \mathbf{E0}\, cos\,(2x + 3y - \omega t)$, where ω is a constant, be the electric field of an electromagnetic wave traveling in a vacuum. Which of the following vectors is a valid choice for **E0** ? a. $\hat{i} - \frac{3}{2}\hat{j}$ b. $\hat{i} + \frac{3}{2}\hat{j}$ c. $\hat{i} + \frac{2}{3}\hat{j}$ d. $\hat{i} - \frac{2}{3}\hat{j}$
A	a
B	b
C	c
D	d
E	None of the above
Correct Answer	D
Marks	1

51

Comprehension	Read the following passage and answer the questions given below it:- If we wish to do with war, we must provide for the settlement of national differences by an international court. This court should be in perpetual session; its members should be selected by the various Governments to be affected by its decisions, and, at the command and disposal of this court, the rest of Christendom being disarmed, there should be a military force sufficient to carry its judgement into effect. There should be no other excuse, no other business for an army or a navy in the civilized world. No man has imagination enough to paint the agonies, the horrors, and cruelties of war. Think of sending shot and shell crashing through the bodies of men!
Question Description	Identify the word or phrase from the passage that implies " continuous or recurring conduct of business"
A	international court
B	army or navy in the civilized world
C	perpetual session
D	carry its judgement into effect
E	None of the above
Correct Answer	C
Marks	1

52

Comprehension	Read the following passage and answer the questions given below it:- If we wish to do with war, we must provide for the settlement of national differences by an international court. This court should be in perpetual session; its members should be selected by the various Governments to be affected by its decisions, and, at the command and disposal of this court, the rest of Christendom being disarmed, there should be a military force sufficient to carry its judgement into effect. There should be no other excuse, no other business for an army or a navy in the civilized world. No man has imagination enough to paint the agonies, the horrors, and cruelties of war. Think of sending shot and shell crashing through the bodies of men!
Question Description	Find a phrase that means “sending shot and shell crashing through bodies of men!”
A	firing bullets and lobbing grenades
B	shooting arrows in the dark
C	firing bullets and shooting water hoses
D	bombing unarmed men
E	None of the above
Correct Answer	A
Marks	1

53

Comprehension	Read the following passage and answer the questions given below it:- If we wish to do with war, we must provide for the settlement of national differences by an international court. This court should be in perpetual session; its members should be selected by the various Governments to be affected by its decisions, and, at the command and disposal of this court, the rest of Christendom being disarmed, there should be a military force sufficient to carry its judgement into effect. There should be no other excuse, no other business for an army or a navy in the civilized world. No man has imagination enough to paint the agonies, the horrors, and cruelties of war. Think of sending shot and shell crashing through the bodies of men!
Question Description	Which of the following is implied by “its” in the statement “the military force is expected to carry the its judgement into effect”
A	the government of the day
B	the civilized world
C	Christendom
D	the international court
E	None of the above
Correct Answer	D
Marks	1

54		
	Comprehension	Read the following passage and answer the questions given below it:- If we wish to do with war, we must provide for the settlement of national differences by an international court. This court should be in perpetual session; its members should be selected by the various Governments to be affected by its decisions, and, at the command and disposal of this court, the rest of Christendom being disarmed, there should be a military force sufficient to carry its judgement into effect. There should be no other excuse, no other business for an army or a navy in the civilized world. No man has imagination enough to paint the agonies, the horrors, and cruelties of war. Think of sending shot and shell crashing through the bodies of men!
	Question Description	The passage implies that the only task or function for the forces in a civilized world should be only
	A	to impeach the governments that defy the international courts
	B	to ensure that the court is in perpetual session
	C	to effectively implement the decisions of the international court
	D	to make sure that the rest of Christendom is disarmed
	E	None of the above
	Correct Answer	C
	Marks	1

55

Comprehension	Read the following passage and answer the questions given below it:- If we wish to do with war, we must provide for the settlement of national differences by an international court. This court should be in perpetual session; its members should be selected by the various Governments to be affected by its decisions, and, at the command and disposal of this court, the rest of Christendom being disarmed, there should be a military force sufficient to carry its judgement into effect. There should be no other excuse, no other business for an army or a navy in the civilized world. No man has imagination enough to paint the agonies, the horrors, and cruelties of war. Think of sending shot and shell crashing through the bodies of men!
Question Description	No man has imagination enough to paint the agonies, the horrors, and cruelties of war." This sentence can be correctly re-written as
A	Every man lacks adequate imagination not to paint the agonies, the horrors, and cruelties of war.
B	All men lack adequate imagination to paint the agonies, the horrors, and cruelties of war.
C	Some men lack adequate imagination to paint the agonies, the horrors, and cruelties of war.
D	All men do not lack the imagination enough to paint the agonies, the horrors, and cruelties of war.
E	None of the above
Correct Answer	B
Marks	1

56		
	Question Description	What was the theme for Republic Day 2025?
	A	Unity in Diversity
	B	Golden India: Heritage and Progress
	C	Vibrant India: Growth and Harmony
	D	India@75: Glory and Aspirations
	E	None of the above
	Correct Answer	B
	Marks	1

57		
	Question Description	When is World Radio Day celebrated?
	A	January 25
	B	February 10
	C	February 13
	D	March 5
	E	None of the above
	Correct Answer	C
	Marks	1

58		
	Question Description	How many new languages have been added to the Lok Sabha translation service?
	A	4
	B	5
	C	6
	D	7
	E	None of the above
	Correct Answer	C
	Marks	1

59		
	Question Description	Until which year has the Jal Jeevan Mission (JJM) been extended?
	A	2025
	B	2026
	C	2030
	D	2028
	E	None of the above
	Correct Answer	D
	Marks	1

60

Question Description	In which state has the WhatsApp-based governance platform 'Mana Mitra' been launched?
A	Maharashtra
B	Tamil Nadu
C	Karnataka
D	Andhra Pradesh
E	None of the above
Correct Answer	D
Marks	1

61

Question Description	Where was the Sci-Fi Science Film Festival of India inaugurated in 2025?
A	Mumbai
B	Panaji
C	Bangalore
D	Pune
E	None of the above
Correct Answer	B
Marks	1

62

Question Description	Who recently became India's top-ranked chess player and 4th globally in the FIDE rankings?
A	Viswanathan Anand
B	Arjun Erigaisi
C	D Gukesh
D	Praggnanandhaa
E	None of the above
Correct Answer	C
Marks	1

63

Question Description	Who has been appointed as the new BCCI Secretary?
A	Jay Shah
B	Prabhtej Singh Bhatia
C	Sourav Ganguly
D	Devajit Saikia
E	None of the above
Correct Answer	D
Marks	1

64		
	Question Description	Which city has been announced as the second capital of Assam?
	A	Dibrugarh
	B	Guwahati
	C	Jorhat
	D	Tezpur
	E	None of the above
	Correct Answer	A
	Marks	1

65		
	Question Description	Which state will establish India’s first AI university?
	A	Karnataka
	B	Tamil Nadu
	C	Gujarat
	D	Maharashtra
	E	None of the above
	Correct Answer	D
	Marks	1

66		
	Question Description	Which word matches the following definition: "A large destructive wave caused by an earthquake."
	A	Tsunami
	B	Cyclone
	C	Tornado
	D	Earthquake
	E	None of the above
	Correct Answer	A
	Marks	1

67		
	Question Description	What will be the 6th term in the series? Z, W, T, Q, N, ___
	A	K
	B	L
	C	M
	D	O
	E	None of the above
	Correct Answer	A
	Marks	1

68

Question Description	Find the relationship: MOUSE : CHEESE :: CAT : ?
A	Dog
B	Milk
C	Fish
D	Mouse
E	None of the above
Correct Answer	C
Marks	1

69

Question Description	Rain is to cloud as fire is to:
A	Smoke
B	Ash
C	Heat
D	Wood
E	None of the above
Correct Answer	A
Marks	1

70	**Question Description**	Statement: "The company's profits have increased since implementing the new advertising campaign." Judgment:
	A	The increase in profits is solely due to the new campaign.
	B	The increase in profits is unrelated to the new campaign.
	C	The new campaign may have contributed to the increase in profits.
	D	The company should stop advertising to maintain profits.
	E	None of the above
	Correct Answer	C
	Marks	1

71	**Question Description**	In an artificial language, "KOR" means "food," "TOR" means "water," and "NOR" means "fire." What is the meaning of "KOR TOR"?
	A	Food water
	B	Water fire
	C	Food fire
	D	Water food
	E	None of the above
	Correct Answer	A
	Marks	1

72

Question Description	Which of the following completes the series? 4, 13, 40, 121, 364, ___
A	1093
B	1024
C	1125
D	1300
E	None of the above
Correct Answer	A
Marks	1

73		
	Question Description	Which part is essential for a book to be understood?
	A	Title
	B	Pages
	C	Content
	D	Cover
	E	None of the above
	Correct Answer	C
	Marks	1

74		
	Question Description	Find the odd one out:
	A	Piano
	B	Guitar
	C	Violin
	D	Flute
	E	None of the above
	Correct Answer	D
	Marks	1

75		
	Question Description	Statement: "The recent increase in crime rates is primarily due to a lack of adequate policing." Conclusion: 1. The government needs to increase the number of police officers. 2. The increase in crime is directly correlated with the number of police officers.
	A	Only conclusion 1 is valid.
	B	Only conclusion 2 is valid.
	C	Both conclusions are valid.
	D	Neither conclusion is valid.
	E	None of the above
	Correct Answer	A
	Marks	1